

Homework Q15

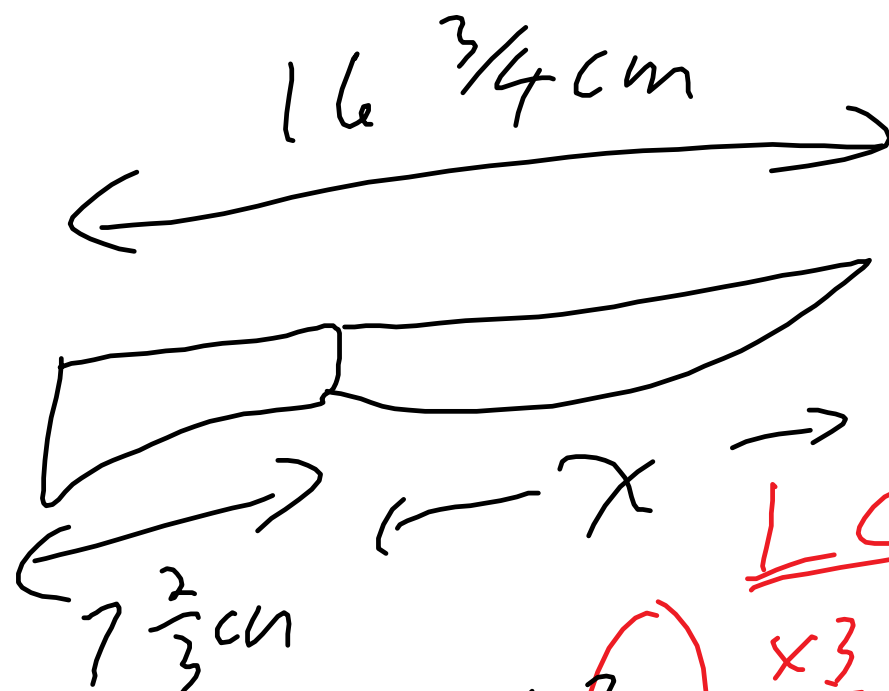


Diagram of a knife with a handle of length $7\frac{2}{3}\text{ cm}$ and a blade of length x cm. The total length is $16\frac{3}{4}\text{ cm}$.

$$x + 7\frac{2}{3}\text{ cm} = 16\frac{3}{4}\text{ cm}$$

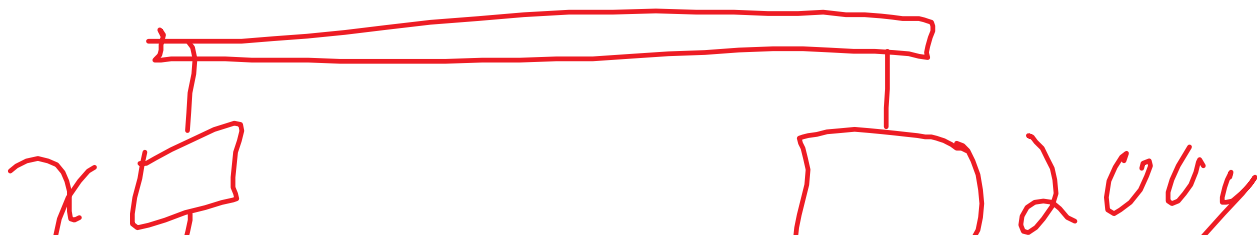
$$- 7\frac{2}{3}\text{ cm} \quad - 7\frac{2}{3}$$

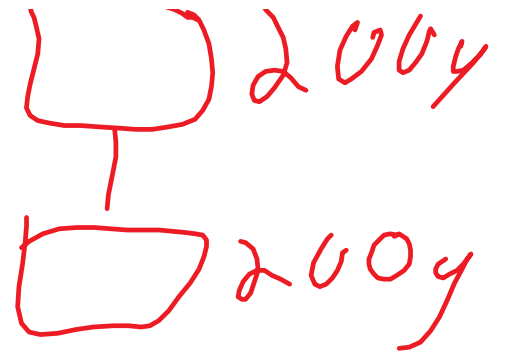
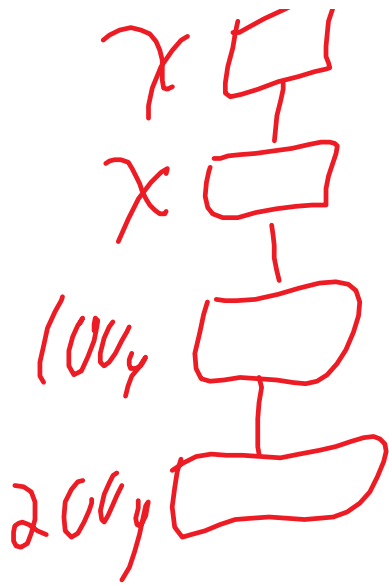
$$x + 0 = 9\frac{1}{12}$$

$$x = 9\frac{1}{12}$$

LCM

| | |
|------------|-----------------|
| $\times 3$ | $\frac{9}{12}$ |
| $\times 3$ | $\frac{12}{12}$ |
| $\times 4$ | $\frac{8}{12}$ |
| $\times 4$ | $\frac{12}{12}$ |





$$\begin{array}{r}
 2x + 300g = 400g \\
 - 300g \quad - 300g \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 2x + 0 = 100g \\
 \hline
 2 \qquad \qquad \quad 2
 \end{array}$$

$$\boxed{x = 50g}$$

$$\begin{array}{r}
 \frac{1}{2}x = 5 \\
 \textcircled{\times 2} \qquad \textcircled{\times 2} \\
 \hline
 \end{array}$$

p189
~~skip 190~~
 191 192

$$x = 10$$

191, 192
LHS

Block 1-1

p185

Q14

Yukon 3185km

Mackenzie = x

$$x - 1056 = 3185$$

$$+1056 \quad +1056$$

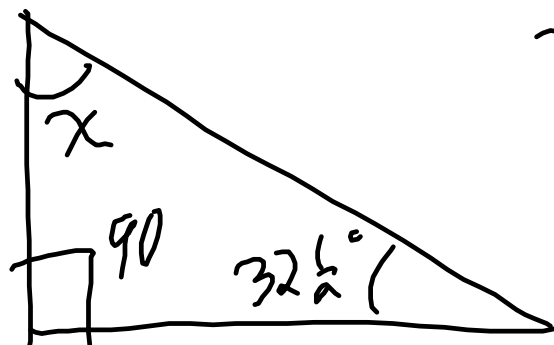
$$x = 3185 + 1056 = 4241$$

Mackenzie river is 4241 km long

Q12

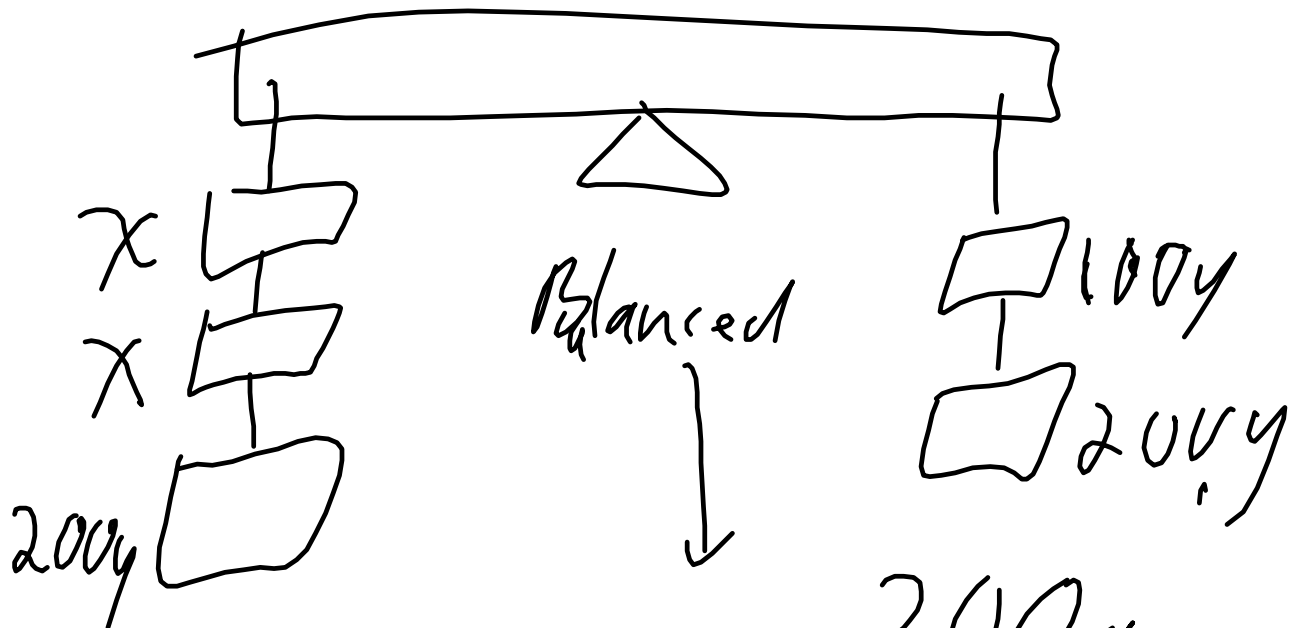
angles of a triangles add to 180°

Right triangle one angle is 90°



$$\begin{aligned}
 x + \cancel{90^\circ} + 32.5^\circ &= 180 \\
 \cancel{= 90} & \quad - 90 \\
 x + 32.5 &= \cancel{180} \quad \quad \quad 89 \\
 - 32.5 & \quad - 32.5
 \end{aligned}$$

$$x = 57\frac{1}{2}^{\circ}$$



$$2x + 200g = 300g$$

$$\quad -200g \quad \quad -200g$$

$$\frac{2x + 0}{2} = \frac{100g}{2}$$

$$x = 50g$$

$$\frac{2}{3}x = 6$$

$$\div \frac{2}{3} = x \frac{3}{2}$$

$$\frac{\cancel{2}}{\cancel{3}} \times \frac{\cancel{3}}{\cancel{2}} x = \cancel{6} \times \frac{3}{\cancel{2}}$$

$$x = 9$$

multiply
by reciprocal
(flip)

$$6a) \frac{4x}{4} = -\frac{14}{4}$$

$$x = -\frac{14}{4}$$

$$x = -\frac{7}{2} \text{ or } -3.5$$

$$\frac{4x}{4} = \frac{20}{4}$$

$$x = 5$$

$$\frac{7\frac{2}{3}z}{7\frac{2}{3}} = \frac{15}{7\frac{2}{3}} = \frac{2\frac{3}{3}}{7\frac{2}{3}}$$

$$\frac{15 \times 3}{23} = \frac{45}{23}$$

$$\left(\frac{5}{6}\right)y = \frac{10}{3}$$

$$\left(1\frac{22}{23}\right)$$

$$\begin{array}{r} \cancel{6} \\ \times \frac{\cancel{6}}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \cancel{6} \\ \times \frac{\cancel{6}}{5} \\ \hline \end{array}$$

$$y = \frac{\cancel{10}^2}{\cancel{2}} \times \frac{\cancel{6}^2}{\cancel{5}} = \boxed{4}$$

$$\begin{array}{r} 3.14 d = 12.2 \text{ cm} \\ \hline 3.14 \end{array} \quad \begin{array}{r} 12.2 \text{ cm} \\ \hline 3.14 \quad 3.88 \end{array} \quad \begin{array}{l} \text{round} \\ \text{up} \end{array}$$

$$\boxed{d = 3.9 \text{ cm}}$$

$$\begin{array}{r} 186 x = 7 \\ \hline 186 \end{array} \quad \begin{array}{r} 7 \\ \hline 186 \quad 376 \end{array} \quad \begin{array}{l} \text{up} \\ \uparrow 5 \end{array}$$

$$x = 0.038$$